

# **Innovative Approaches to Reducing Auto Emissions**

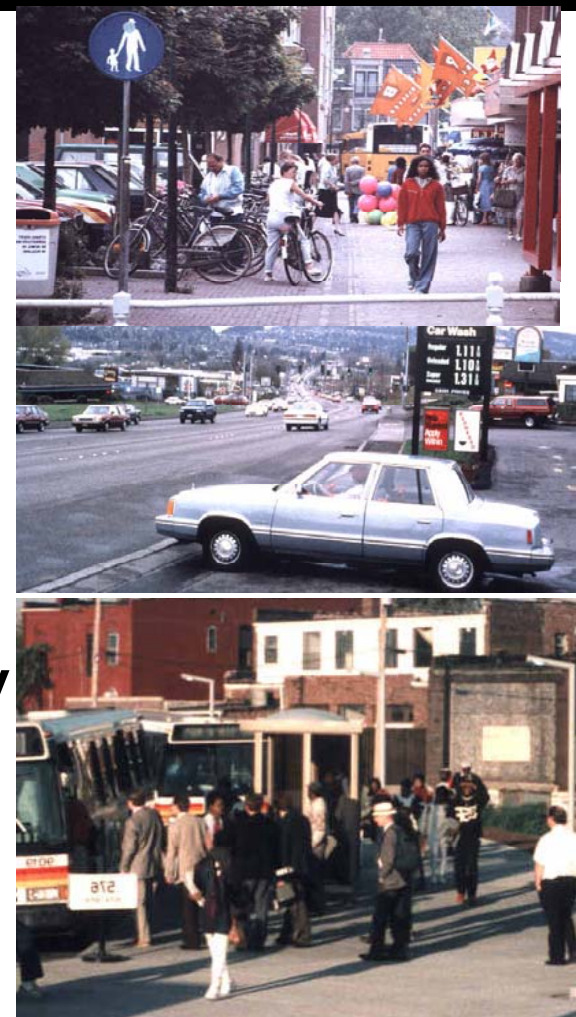
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# What Gets Us Reduced Emissions?

- Environmentally efficient vehicles, fuels, and choices
- Incentives to choose efficient vehicles and modes for trips
- Smart growth to help proximity & communications reduce need for auto-mobility
- Better management systems: conformity and planning



# **Build the Connections: Policy-Traffic-Pollution-Health**

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- Increased transit and marketing of commute alternatives and incentives during 1996 Atlanta Olympics led to 23% drop in regional traffic volumes
- Reduced traffic led to 28% drop in ozone concentrations during Olympics
- Reduced ozone led to 42% drop in hospital visits for asthma acute care

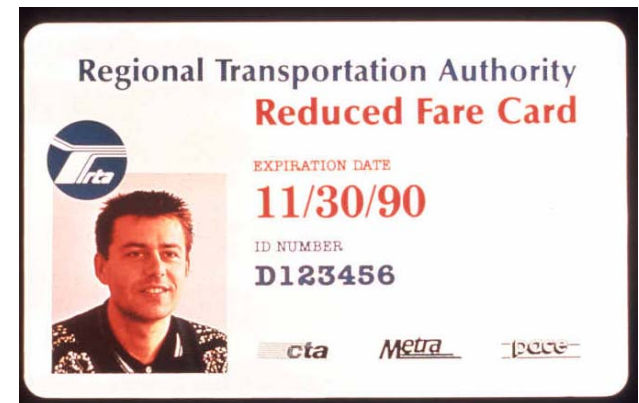
# **Emission Reduction Opportunities**

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- ✓ Bulk transit passes, commute benefits
- ✓ Parking management and pricing, cash-out
- ✓ Transit services and transit access systems
- ✓ Bicycle and pedestrian infrastructure, services, and support measures
- ✓ Transit-oriented development, urban design, retrofitting suburbs for diverse travel choices
- ✓ Managing street space and traffic flow
- ✓ Assuring affordable housing close to jobs

# Ready, Set, Go! New Commuter Tax Incentives

- Pre-tax transit/vanpool benefits paid for by employees or employer save both \$\$\$
- ✳️ Cash-in-lieu-of-parking: 12% employees taking the money and leaving their cars at home
- ✳️ State tax credits for transit, parking cash-out incentives: MD, MN, WA, NJ, GA, OR



# Free Parking Costs Us

- Free parking costs US \$250-400 billion/year
- Re-valuation through parking cash out
- Information-based parking management
  - ✳ smart card payment
  - ✳ real-time information
  - ✳ time-of-day pricing





Who says you can't make money  
sitting on your butt.

With Commuter Choice, your employer can pay you to take mass transit, ride your bike, or vanpool to work. Your boss gets a tax break, and you'll arrive relaxed, stress-free, and with a nice chunk of change in your pocket. To learn more, visit [www.commuterchoice.com](http://www.commuterchoice.com).



There is such a thing as a free ride.

# Commuter Choice Marketing

National Cooperative  
Commuter Choice  
Marketing Initiative

[www.commuterchoice.com](http://www.commuterchoice.com)

[www.commuterchoicemaryland.com](http://www.commuterchoicemaryland.com)

[www.environmentaldefense.org](http://www.environmentaldefense.org)

# Repositioning Transit With Priority & Information

- Prepaid smart cards & bus rapid transit: speed fare collection, boarding
- Traveler information and communications
- Smart shuttles give new door-to-door options
- Right-of-way transit priority, channelization



# Expanding Vehicle Use Options and Choice

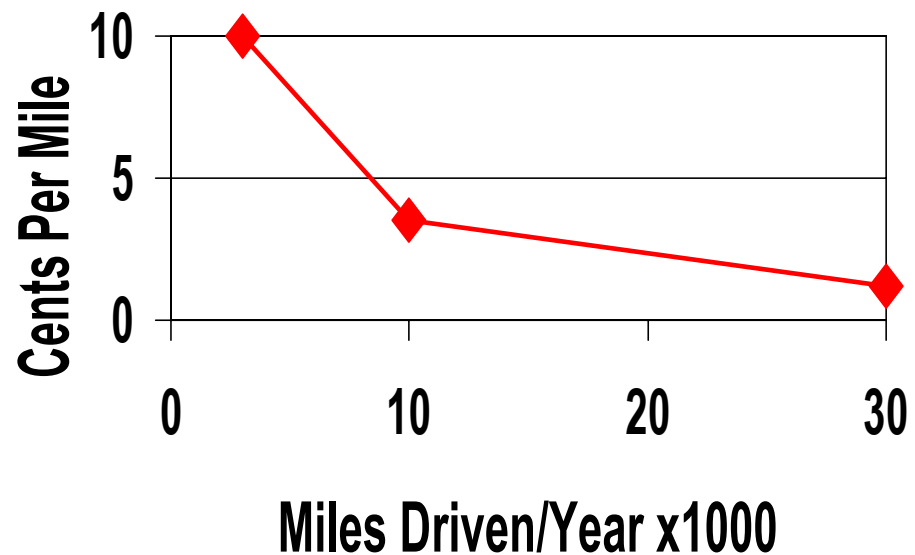
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- ✓ Use-based car insurance with rates based on how and how much you drive ([www.vtppi.org](http://www.vtppi.org))
- ✓ Dynamic ridesharing and pay-me-not-to-drive systems ([www.nuride.com](http://www.nuride.com))
- ✓ Car-sharing and mobility providers

# **PAYDAYS Car Insurance: Drive Less, Save Money!**

- Today's fixed cost insurance spurs traffic, hurts poor
- Pay-as-you-drive-and-you-save policy fee determined by how much you drive
- Could cut VMT 10%+

Typical Current Insurance Pricing:  
Those Who Drive Less Pay Most



# Modern Road User Charges

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- Paying for roads in 21st century: trouble ahead
- Gas taxes vs traffic growth
- Deferred maintenance no longer off the books
- New toll technologies, GPS makes high-speed non-stop tolling off-the-shelf
- No more toll booths!

# Pay in Time or Pay in Dollars to Get New Choices?

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## Value Pricing

- High Occupancy Toll (HOT) lanes
- Automated time-of-day variable tolls
- Financing new transit options with revenues
- Integrating pricing into planning process



# Boosting Equity and Cutting Congestion with HOT Lanes

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*I-15 HOT  
tolls pay for  
a new bus  
line's  
operations*



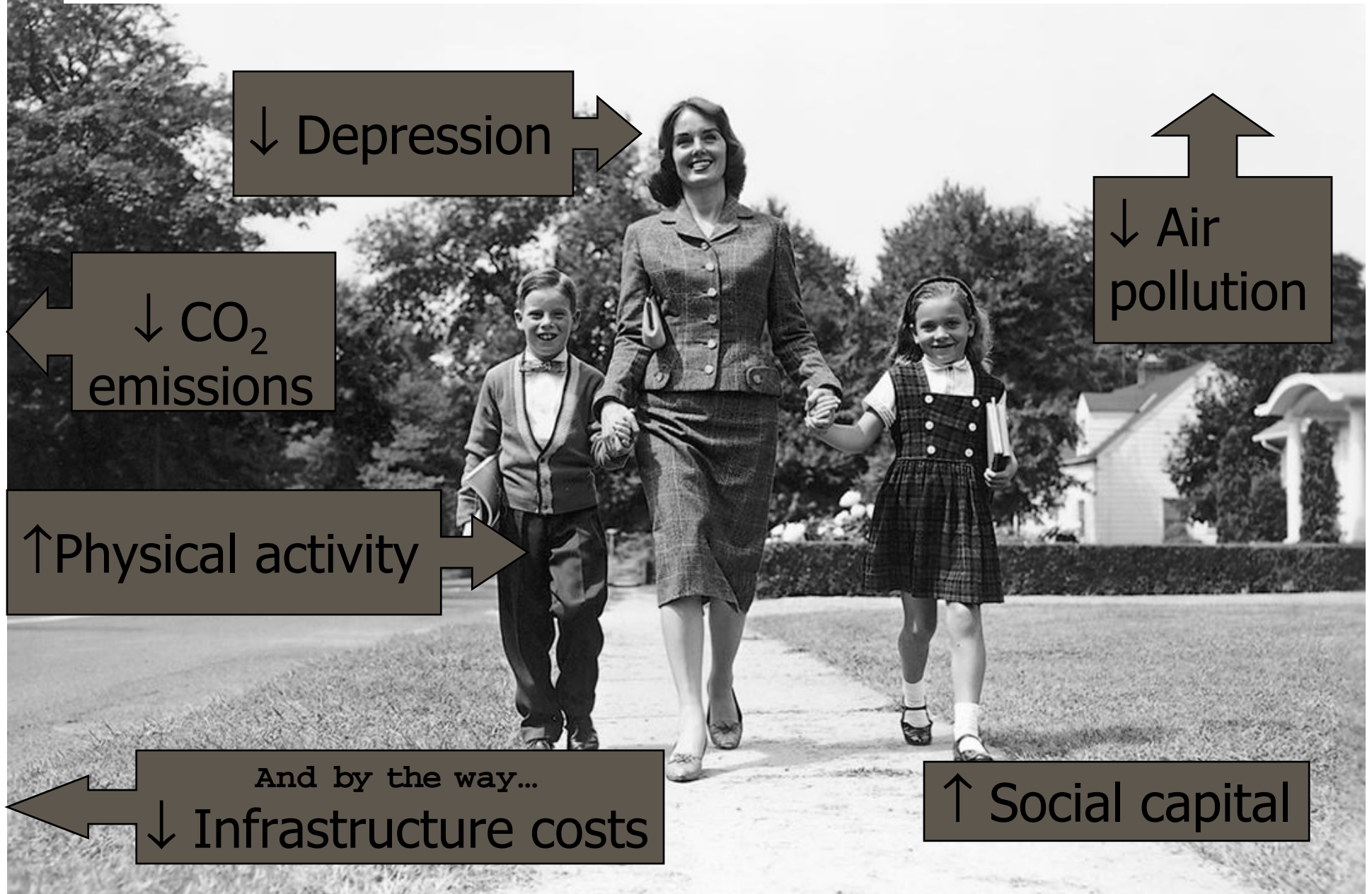
- ✱ Underused HOV lanes waste scarce capacity
- ✱ Studies show HOT lanes boost equity if revenue used to enhance transit
- ✱ People of all incomes use HOT lanes on days when in a hurry

# **Can You Find the Travel Reduction Opportunities?**

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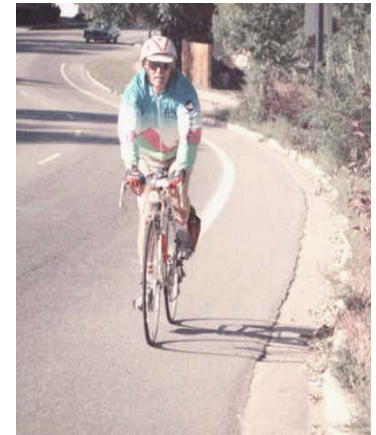
# Benefits beyond what the traffic models show...



# Safe Routes to Schools and Transit



- Direct priority routes for cyclists and pedestrians
- Information infrastructure
- Channelized traffic with medians, traffic calming



# Expanding Transit Markets with Bicycle Access/Egress

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- Expands walk access 35 X at both trip ends
- 10-100 times cheaper than park-and-ride
- California, Holland, Oregon as models
- Program guarded bike parking, racks, paths for stations, P&R lots



# Bike Stations

- Guarded bike parking vs. lockers and racks
- Bicycle support services at transit stations and centers

([www.bikestation.org](http://www.bikestation.org))



# **Emission Reduction**

## **Opportunities: Next Wave**

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- ✓ Smart Growth Innovation SIPs, Land Use TCMs in SIPs
- ✓ Performance-based transportation planning, operations, management integrated with land use and natural resource planning/management
- ✓ Smart freight and logistics management/pricing
- ✓ Car free vacations and travel services

# Comprehensive TDM Envisions Change



# Induced Traffic in SIPs, Conformity, Project Planning

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- Research shows: +10% lane miles typically yields +8% vehicle miles travel
- Many traffic models miss the induced traffic: audit & fix, collect better data
- Improve travel evaluation, monitoring & accounting or else suffer SIP failure

# **Best Practices for Conformity**

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- Aspire to use best practice models, current data
- Assure SIP compliance demonstrations every 3 years with requisite corrective actions to fix
- Include TCMs in SIPs with modest credit using demonstrated excess credits to help with conformity: protect transit funding
- Establish strong interagency and public involvement process, consider alternatives

# **It's About More Than Just Air Pollution**

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- Cost effective congestion relief and travel choice
- Public health: air pollution, air toxics, cancer, physical activity, mental health
- Ecosystem health: water pollution, excess system nitrogen, threats to biodiversity, habitat disruption and loss
- Climate system: greenhouse gas emissions
- Equity of access to jobs, public facilities
- Environmental justice
- Neighborhood and regional livability

# Media and Marketing Shaping the Climate of Opinion

- Consumption responds to marketing, education, choices, pricing
- Transportation values shift in the making?
- Marketing shapes acceptance of reform  
([www.commuterchoice.com](http://www.commuterchoice.com), [www.getgreen.com](http://www.getgreen.com))

